Zpravodaj 2024/3-4

Zpravodaj is the journal of \mathcal{CS} TUG, the TEX user group oriented mainly but not entirely to the Czech and Slovak languages. The full issue can be downloaded at cstug.cz/bulletin.

VÍT STARÝ NOVOTNÝ, Úvodník [Editorial]; pp. 61–62

The editorial presents an overview of the articles from this issue and announces TUG 2024, which will be held in Prague.

VÍT STARÝ NOVOTNÝ, $\mathcal{C}_{\mathcal{S}}$ TUG na konferenci TUG 2023 [$\mathcal{C}_{\mathcal{S}}$ TUG at the TUG 2023 conference]; pp. 63–65

A report on the participation of $\mathcal{C}_{\mathcal{S}}$ TUG members at TUG 2023 in Bonn.

JAN ŠUSTEK, Generování dokumentovaného zdrojového souboru po blocích v TEXu [On generating documented source code by blocks in TEX]; pp. 66–101

This paper concerns writing programs and their documentation. We show author's package gensrc running on OPmac, which allows writing both program code and its documentation in one TEX file. We also show more possibilities and applications of this package.

JAN ŠUSTEK, Jak umožnit stránkový zlom uvnitř vložených obrázků [How to enable page breaks in embedded images]; pp. 102–110

This paper defines and describes TEX macros for inserting objects which are so tall that the page breaking is difficult. These objects can be images, text examples or generally a content of a box. The macros insert the object at the current position and they allow a page break in the middle of the object.

VÍT STARÝ NOVOTNÝ, Markdown 3: Co je nového a co se chystá? [Markdown 3: What's new, what's next?]; pp. 111–124

The Markdown package for TEX has provided an extensible and format-agnostic markup language for the past seven years. In this article, I present the third major release of the Markdown package and the changes it brings compared to version 2.10.0. In the article, I target the three major stakeholders of the Markdown package. Writers will learn about the new elements which they can type in their Markdown documents, TEXnicians will learn how they can style Markdown documents in different TEX formats, and developers will learn about the governance and the development of the Markdown package and how they can extend Markdown with new elements. This article is a Czech translation of my talk at TUG 2023.

Ondřej Sojka, Petr Sojka, Jakub Máca, A roadmap for universal syllabic segmentation; pp. 125–138

An extended version of the article with the same title from $TUGboat\ 44:2.$

BARBARA BEETON, Co by každý (I♣)TEXový nováček měl znát [What every (I♣)TEX newbie should know]; pp. 139–152

A Czech translation of the article from *TUG-boat* 44:2. Translation by Jan Šustek.

Vít Starý Novotný, Sazba textu české lidové písně "Když jsem já sloužil" pomocí modulu l3seq jazyka expl3 [Typesetting the lyrics of the Czech folksong "Když jsem já sloužil"]; pp. 153–164

The language of TEX was developed for typesetting books. Although it is Turing-complete, it was not designed for software development. Whereas writing and designing documents is straightforward in plain TEX, programming is difficult due to a lack of basic data structures and complex macro expansion, both quite different from modern imperative programming languages.

In the LuaTEX engine, authors can also program in the imperative programming language Lua. Although Lua does not share the limitations of plain TEX, passing data between TEX and Lua is not straightforward and important information such as token category codes are lost in transit.

The expl3 programming language combines the best of both worlds and allows authors to program in TEX in a way that is similar to modern imperative programming languages.

In this article, I introduce the l3seq module of the expl3 language that provides the list data structure. Using l3seq, I typeset the lyrics of the Czech folksong Když jsem $j\acute{a}$ sloužil. I also compare the l3seq implementation with one in plain T_FX.

[Received from Vít Novotný.]